

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated hereafter. [Use ~~strikethrough~~ for deleted matter and underlined for added matter.]

1. (Original) A system which adjusts impedance of a power amplifier system, comprising:

a first power amplifier amplifying a communication signal;
a bias controller for outputting a control signal, the bias controller coupled to a communication device such that the communication signal is sensed;

a second power amplifier responsive to the control signal, such that the bias controller activates the second power amplifier when an amplitude of the communication signal is at least equal to a predetermined amplitude, and such that the bias controller deactivates the second power amplifier when the amplitude of the communication signal is less than the predetermined amplitude; and

a prematching impedance network coupled to at least the second power amplifier such that when the bias controller activates the second power amplifier the prematching impedance network adjusts a system impedance to a first value when the first power amplifier is activated, and such that when the bias controller deactivates the second power amplifier the prematching impedance network adjusts the system impedance to a second value when the first power amplifier and the second power amplifier are activated.

2. (Currently amended) The system of claim 1, wherein the prematching impedance network comprises at least one reactance such that the prematching impedance network adjusts [[a]] the system impedance to a first phase angle when the first power amplifier is activated, and such that the prematching impedance network adjusts the system impedance to a second phase angle when the first power amplifier and the second power amplifier are activated.

3. (Original) The system of claim 1, wherein the prematching impedance network is coupled to an input of the second power amplifier.

4. (Original) The system of claim 1, wherein the prematching impedance network is coupled to an output of the second power amplifier.

5. (Currently amended) The system of claim 1, further comprising:
a first portion of the prematching impedance network is coupled to an input of the first power amplifier; and

a second portion of the prematching impedance network is coupled to an input of the second power amplifier, and

an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network.

6. (Currently amended) The system of claim 1, further comprising:
a first portion of the prematching impedance network is coupled to an input of the second power amplifier; and
a second portion of the prematching impedance network is coupled to an output of the second power amplifier, and

an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network.

7. (Currently amended) The system of claim 1, further comprising:
a first portion of the prematching impedance network is coupled to an input of the first power amplifier;
a second portion of the prematching impedance network is coupled to an input of the second power amplifier; and
a third portion of the prematching impedance network is coupled to an output of the second power amplifier, and

an input matching impedance and coupler coupled between a transmit unit providing the communication signal and the first portion of the prematching impedance network, and coupled between the transmit unit and the second portion of the prematching impedance network.

8. (Original) A method for adjusting impedance of a power amplifier system, the method comprising the steps of:

combining an output of a first power amplifier with an output of a second power amplifier via a coupler that couples an output connection of the first power amplifier with an output connection of the second power amplifier;

adjusting a prematching impedance network coupled to the second power amplifier adjusts a system impedance to a first value when the second power amplifier is not actuated; and

adjusting the prematching impedance network to a second value when the second power amplifier is actuated.

9. (Original) The method of claim 8, further comprising the steps of:

adjusting the prematching impedance network to a first impedance when the second power amplifier is not actuated; and

adjusting the prematching impedance network to a second impedance when the second power amplifier is actuated.

10. (Original) The method of claim 8, further comprising the steps of:

adjusting the prematching impedance network to a first phase angle when the second power amplifier is not actuated; and

adjusting the prematching impedance network to a second phase angle when the second power amplifier is actuated.

11. (Original) The method of claim 8, further comprising the step of coupling the prematching impedance network to an input of the second power amplifier.

12. (Original) The method of claim 8, further comprising the step of coupling the prematching impedance network to the output of the second power amplifier.

13.-15. (Canceled)

16. (Original) A system for adjusting impedance of a power amplifier system, comprising:

means for combining an output of a first power amplifier with an output of a second power amplifier via a coupler that couples an output connection of the first power amplifier with an output connection of the second power amplifier; and

a prematching impedance network means coupled to the second power amplifier for adjusting a system impedance to a first value when the second power amplifier is not actuated, and for adjusting a system impedance to a second value when the second power amplifier is actuated.

17. (Original) The system of claim 16, wherein the prematching impedance network means is coupled to an input of the second power amplifier.

18. (Original) The system of claim 16, wherein the prematching impedance network means is coupled to the output of the second power amplifier.

19.-22. (Canceled)

23. (Original) The method of claim 16, further comprising the steps of:

means for adjusting the prematching impedance network to a first phase angle when the second power amplifier is not actuated; and

means for adjusting the prematching impedance network to a second phase angle when the second power amplifier is actuated.